

# SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



**n-Heptanoic acid HP  
10520A**

**Version / Revision** 5.01  
**Supersedes Version** 5.00\*\*\*

**Revision Date** 26-Jan-2023  
**Issuing date** 26-Jan-2023

## SECTION 1: Identification of the substance / mixture and of the company / undertaking

### 1.1. Product identifier

**Identification of the substance/preparation**

**n-Heptanoic acid HP**

**Chemical Name** Heptanoic acid  
**CAS-No** 111-14-8  
**EC No.** 203-838-7

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Transported isolated intermediate (1907/2006)  
**Uses advised against** None

### 1.3. Details of the supplier of the safety data sheet

**Company/Undertaking Identification** **OQ Chemicals GmbH**  
Rheinpromenade 4A  
D-40789 Monheim  
Germany

**Product Information** Product Stewardship  
FAX: +49 (0)208 693 2053  
email: sc.psq@oq.com

### 1.4. Emergency telephone number

**Emergency telephone number** +44 (0) 1235 239 670 (UK)  
available 24/7

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

This substance is classified based on Directive 1272/2008/EC and its amendments (CLP Regulation)

Acute inhalation toxicity Category 4, H332  
Skin corrosion/irritation Category 1B, H314  
Serious eye damage/eye irritation Category 1, H318  
Target Organ Systemic Toxicant - Single exposure Category 3, H335

#### Additional information

For full text of Hazard- and EU Hazard-statements see SECTION 16.

### 2.2. Label elements

Labelling according to Regulation 1272/2008/EC and its amendments (CLP Regulation).

#### Hazard pictograms

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**Signal word**

**Danger**

**Hazard statements**

H332: Harmful if inhaled.  
H314: Causes severe skin burns and eye damage.  
H335: May cause respiratory irritation.

**Precautionary statements**

P260: Do not breathe gas/mist/vapours.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a POISON CENTER/doctor.  
P403 + P233: Store in a well ventilated place. Keep container tightly closed.

## 2.3. Other hazards

Components of the product may be absorbed into the body by inhalation

**PBT and vPvB assessment**

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

**Endocrine disrupting assessments**

The substance is not listed on the candidate list according to Art. 59(1), REACH. The substance was not assessed as having endocrine disrupting properties according to regulation 2017/2100/EU or 2018/605/EU.

## SECTION 3: Composition / information on ingredients

### 3.1. Substances

| Component      | CAS-No   | 1272/2008/EC   | Concentration (%) |
|----------------|----------|--|-------------------|
| Heptanoic acid | 111-14-8 | Acute Tox. 4; H332<br>Skin Corr. 1B; H314<br>Eye Dam. 1; H318<br>STOT SE 3; H335<br>ATE = 4,7 mg/L (inhalation)<br>(dust/mist) | > 95,5            |

For full text of Hazard- and EU Hazard-statements see SECTION 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation

Keep at rest. Aerate with fresh air. Symptoms of poisoning may develop many hours after exposure. Call a physician immediately.

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## **Skin**

Wash off immediately with soap and plenty of water. When symptoms persist or in all cases of doubt seek medical advice.

## **Eyes**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

## **Ingestion**

Call a physician immediately. Do not induce vomiting without medical advice.

## **4.2. Most important symptoms and effects, both acute and delayed**

### **Main symptoms**

cough, headache, nausea, shortness of breath, vomiting, convulsions.

### **Special hazard**

Lung irritation, Lung oedema.

## **4.3. Indication of any immediate medical attention and special treatment needed**

### **General advice**

Remove contaminated, soaked clothing immediately and dispose of safely. First aider needs to protect himself.

Treat symptomatically. If ingested, flush stomach and compensate acidosis.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

foam, dry chemical, carbon dioxide (CO<sub>2</sub>), water spray

#### **Unsuitable Extinguishing Media**

Do not use a solid water stream as it may scatter and spread fire.

### **5.2. Special hazards arising from the substance or mixture**

Under conditions giving incomplete combustion, hazardous gases produced may consist of:

carbon monoxide (CO)

carbon dioxide (CO<sub>2</sub>)

Combustion gases of organic materials must in principle be graded as inhalation poisons

Vapours are heavier than air and may spread along floors

### **5.3. Advice for firefighters**

#### **Special protective equipment for firefighters**

Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.

#### **Precautions for firefighting**

Cool containers / tanks with water spray. Water run-off and vapor cloud may be corrosive. Dike and collect water used to fight fire. Keep people away from and upwind of fire.

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## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel: For personal protective equipment see section 8. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.

For emergency responders: Personal protection see section 8.

### **6.2. Environmental precautions**

Prevent further leakage or spillage. Do not discharge product into the aquatic environment without pretreatment (biological treatment plant).

### **6.3. Methods and material for containment and cleaning up**

#### **Methods for containment**

Stop the flow of material, if possible without risk. Dike spilled material, where this is possible.

#### **Methods for cleaning up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. Dispose of in accordance with local regulations. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

### **6.4. Reference to other sections**

For personal protective equipment see section 8.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Provide sufficient air exchange and/or exhaust in work rooms.

#### **Hygiene measures**

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

#### **Advice on the protection of the environment**

See Section 8: Environmental exposure controls.

#### **Incompatible products**

bases  
amines

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). In case of fire, emergency cooling with water spray should be available. Ground and bond containers when transferring material.

#### **Technical measures/Storage conditions**

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Keep containers tightly closed in a cool, well-ventilated place. Handle and open container with care. Keep at temperatures between 0 and 38 °C (32 and 100 °F).

## Temperature class

T3

## 7.3. Specific end use(s)

Transported isolated intermediate (1907/2006)

## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

#### Exposure limits European Union

No exposure limits established

#### Exposure limits UK

No exposure limits established.

#### DNEL & PNEC

This substance is registered as intermediate under strictly controlled conditions.

#### Heptanoic acid, CAS: 111-14-8

##### Workers

|  |                                      |
|--|--------------------------------------|
| <b>DN(M)EL - long-term exposure - systemic effects - Inhalation</b>          | 98,7 mg/m <sup>3</sup>               |
| <b>DN(M)EL - acute / short-term exposure - systemic effects - Inhalation</b> | Medium hazard (no threshold derived) |
| <b>DN(M)EL - long-term exposure - local effects - Inhalation</b>             | Medium hazard (no threshold derived) |
| <b>DN(M)EL - acute / short-term exposure - local effects - Inhalation</b>    | Medium hazard (no threshold derived) |
| <b>DN(M)EL - long-term exposure - systemic effects - Dermal</b>              | 14 mg/kg bw/day                      |
| <b>DN(M)EL - acute / short-term exposure - systemic effects - Dermal</b>     | Medium hazard (no threshold derived) |
| <b>DN(M)EL - long-term exposure - local effects - Dermal</b>                 | Medium hazard (no threshold derived) |
| <b>DN(M)EL - acute / short-term exposure - local effects - Dermal</b>        | Medium hazard (no threshold derived) |
| <b>DN(M)EL - local effects - eyes</b>  | Medium hazard (no threshold derived) |

##### General population

|  |   |
|--|---|
| <b>DN(M)EL - long-term exposure - systemic effects - Inhalation</b>          | 8,7 mg/m <sup>3</sup>                             |
| <b>DN(M)EL - acute / short-term exposure - systemic effects - Inhalation</b> | Hazard unknown (no further information necessary) |
| <b>DN(M)EL - long-term exposure - local effects - Inhalation</b>             | Medium hazard (no threshold derived)              |

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|   |   |
|---|---|
| <b>DN(M)EL - acute / short-term exposure - local effects - Inhalation</b> | derived)<br>Hazard unknown (no further information necessary) |
| <b>DN(M)EL - long-term exposure - systemic effects - Dermal</b>           | 5 mg/kg bw/day  |
| <b>DN(M)EL - acute / short-term exposure - systemic effects - Dermal</b>  | Hazard unknown (no further information necessary)             |
| <b>DN(M)EL - long-term exposure - local effects - Dermal</b>              | Medium hazard (no threshold derived)                          |
| <b>DN(M)EL - acute / short-term exposure - local effects - Dermal</b>     | Medium hazard (no threshold derived)                          |
| <b>DN(M)EL - long-term exposure - systemic effects - Oral</b>             | Medium hazard (no threshold derived)                          |
| <b>DN(M)EL - acute / short-term exposure - systemic effects - Oral</b>    | 5 mg/kg bw/day  |
| <b>DN(M)EL - local effects - eyes</b>                                     | Medium hazard (no threshold derived)                          |

## Environment

|                                     |                                  |
|-------------------------------------|----------------------------------|
| <b>PNEC aqua - freshwater</b>       | 0,4 mg/l                         |
| <b>PNEC aqua - marine water</b>     | 0,04 mg/l                        |
| <b>PNEC STP</b>                     | 1000 mg/l                        |
| <b>PNEC sediment - freshwater</b>   | 2,08 mg/kg dw                    |
| <b>PNEC sediment - marine water</b> | 0,21 mg/kg dw                    |
| <b>PNEC Air</b>                     | No hazard identified             |
| <b>PNEC soil</b>                    | 0,12 mg/kg dw                    |
| <b>Secondary poisoning</b>          | No potential for bioaccumulation |

## 8.2. Exposure controls

### Special adaptations (REACH)

Not applicable.

### Appropriate Engineering controls

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

### Personal protective equipment

#### General industrial hygiene practice

Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

#### Eye protection

Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.

Equipment should conform to EN 166

#### Hand protection

Wear protective gloves. Recommendations are listed below. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction

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with this chemical, material selection should be based on protection for all chemicals present.

**Suitable material** nitrile rubber  
**Evaluation** according to EN 374: level 6  
**Glove thickness** approx 0.55 mm  
**Break through time** > 480 min

**Suitable material** polyvinylchloride / nitrile rubber  
**Evaluation** according to EN 374: level 6  
**Glove thickness** approx 0.9 mm  
**Break through time** > 480 min

## Skin and body protection

Impervious clothing. Wear face-shield and protective suit for abnormal processing problems.

## Environmental exposure controls

If possible use in closed systems. If leakage can not be prevented, the substance needs to be suck off at the emersion point, if possible without danger. If recycling is not practicable, dispose of in compliance with local regulations. Inform the responsible authorities in case of leakage into the atmosphere, or of entry into waterways, soil or drains.

## Additional advice

Further details on substance data can be found in the registration dossier under the following link:  
<http://echa.europa.eu/information-on-chemicals/registered-substances>.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |   |              |      |      |          |
|---|---|--------------|------|------|----------|
| <b>Physical state</b>   | liquid  |              |      |      |          |
| <b>Colour</b>   | colourless  |              |      |      |          |
| <b>Odour</b>  | pungent   |              |      |      |          |
| <b>Odour threshold</b>  | 0,6 - 10,4 ppm  |              |      |      |          |
| <b>Melting point/freezing point</b>                             | -8 °C   |              |      |      |          |
| <b>Boiling point or initial boiling point and boiling range</b> | 223 °C @ 1013 hPa   |              |      |      |          |
| <b>Flammability</b>   | Even if not classified as flammable, the product is capable of catching fire or being set on fire.*** |              |      |      |          |
| <b>Lower explosion limit</b>                                    | 1,09 Vol %  |              |      |      |          |
| <b>Upper explosion limit</b>                                    | 10,1 Vol %  |              |      |      |          |
| <b>Flash point</b>  | 117 °C @ 1013 hPa   |              |      |      |          |
| <b>Method</b>   | DIN EN ISO 3679   |              |      |      |          |
| <b>Autoignition temperature</b>                                 | 275 °C  |              |      |      |          |
| <b>Method</b>   | EU A.15   |              |      |      |          |
| <b>Decomposition temperature</b>                                | No data available   |              |      |      |          |
| <b>pH</b>   | 4,8 @ 20 °C (68 °F)   |              |      |      |          |
| <b>Kinematic Viscosity</b>                                      | 3,704 mm <sup>2</sup> /s @ 30 °C  |              |      |      |          |
| <b>Solubility</b>   | 1,96 - 5,32 g/l @ 25 °C, in water   |              |      |      |          |
| <b>Partition coefficient n-octanol/water (log value)</b>        | 2,54 (calculated) KOW WIN   |              |      |      |          |
| <b>Vapour pressure</b>  |   |              |      |      |          |
| Values [hPa]  | Values [kPa]  | Values [atm] | @ °C | @ °F | Method   |
| 0,013   | 0,0013  | < 0,001      | 20   | 68   | OECD 104 |
| 0,2   | 0,02  | < 0,001      | 50   | 122  | OECD 104 |
| <b>Density and/or relative density</b>                          |   |              |      |      |          |



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| Values                          | @ °C                          | @ °F | Method |
|---------------------------------|-------------------------------|------|--------|
| 0,918                           | 20                            | 68   |        |
| <b>Relative vapour density</b>  | 4,5 (Air = 1) @ 20 °C (68 °F) |      |        |
| <b>Particle characteristics</b> | not applicable                |      |        |

## 9.2. Other information

|                              |   |
|------------------------------|---|
| <b>Explosive properties</b>  | Does not apply, substance is not explosive. There are no chemical groups associated with explosive properties |
| <b>Oxidizing properties</b>  | Does not apply, substance is not oxidising. There are no chemical groups associated with oxidizing properties |
| <b>Molecular weight</b>      | 130,19  |
| <b>Molecular formula</b>     | C7 H14 O2   |
| <b>log Koc</b>               | 1,2 calculated  |
| <b>Dissociation constant</b> | pKa 4,75 @ 20 °C (68 °F) (calculated)   |
| <b>Refractive index</b>      | 1,422 @ 20 °C   |
| <b>Evaporation rate</b>      | No data available   |

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

The reactivity of the product corresponds to the typical reactivity shown by the substance group as described in any text book on organic chemistry.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

### 10.4. Conditions to avoid

Avoid contact with heat, sparks, open flame and static discharge. Avoid any source of ignition.

### 10.5. Incompatible materials

bases, amines.

### 10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Likely routes of exposure** Ingestion, Inhalation, Eye contact, Skin contact

| <b>Acute toxicity</b>            |          |        |         |        |
|----------------------------------|----------|--------|---------|--------|
| <b>Heptanoic acid (111-14-8)</b> |          |        |         |        |
| Routes of Exposure               | Endpoint | Values | Species | Method |



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|            |      |                 |                  |          |
|------------|------|-----------------|------------------|----------|
| Inhalative | LC50 | > 4,6 mg/l (4h) | rat, male/female | OECD 403 |
|------------|------|-----------------|------------------|----------|

## **Heptanoic acid, CAS: 111-14-8**

### **Assessment**

The available data lead to the classification given in section 2

Dermal acute toxicity data were not determined, because of the corrosive properties of the substance

For acute oral toxicity, no data are available

| <b>Irritation and corrosion</b>  |         |            |          |    |
|----------------------------------|---------|------------|----------|----|
| <b>Heptanoic acid (111-14-8)</b> |         |            |          |    |
| Target Organ Effects             | Species | Result     | Method   |    |
| Skin                             | rabbit  | corrosive  | OECD 404 |    |
| Respiratory tract                | rat     | irritating | OECD 403 | 4h |

## **Heptanoic acid, CAS: 111-14-8**

### **Assessment**

The available data lead to the classification given in section 2

Available skin corrosion data suffice for classification of eye corrosion without further testing

| <b>Sensitization</b>             |            |                 |          |  |
|----------------------------------|------------|-----------------|----------|--|
| <b>Heptanoic acid (111-14-8)</b> |            |                 |          |  |
| Target Organ Effects             | Species    | Evaluation      | Method   |  |
| Skin                             | guinea pig | not sensitizing | OECD 406 |  |

## **Heptanoic acid, CAS: 111-14-8**

### **Assessment**

Based on available data, the classification criteria are not met for:

Skin sensitization

For respiratory sensitization, no data are available

| <b>Subacute, subchronic and prolonged toxicity</b> |                     |                  |          |      |
|--|---------------------|------------------|----------|------|
| <b>Heptanoic acid (111-14-8)</b>                   |                     |                  |          |      |
| Type   | Dose                | Species          | Method   |      |
| Subacute toxicity                                  | NOAEL: 1750 mg/kg/d | rat, male/female | OECD 407 | Oral |
| Subacute toxicity                                  | LOAEL: 3500 mg/kg/d | rat, male/female | OECD 407 | Oral |
| Subchronic toxicity                                | NOAEL: 1000 mg/kg/d | rat, male/female | OECD 408 | Oral |

## **Heptanoic acid, CAS: 111-14-8**

### **Assessment**

Based on available data, the classification criteria are not met for:

STOT RE

| <b>Carcinogenicity, Mutagenicity, Reproductive toxicity</b> |                    |                        |            |                 |                   |
|---|--------------------|------------------------|------------|-----------------|-------------------|
| <b>Heptanoic acid (111-14-8)</b>                            |                    |                        |            |                 |                   |
| Type  | Dose               | Species                | Evaluation | Method          |                   |
| Mutagenicity  |                    | Salmonella typhimurium | negative   | OECD 471 (Ames) | In vitro study    |
| Developmental Toxicity                                      | NOAEL 1000 mg/kg/d | rat                    |            | OECD 414, Oral  | Maternal toxicity |
| Developmental Toxicity                                      | NOAEL 1000 mg/kg/d | rat                    |            | OECD 414, Oral  | Teratogenicity    |

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|                        |                      |                                 |          |                                    |                                |
|------------------------|----------------------|---------------------------------|----------|------------------------------------|--------------------------------|
| Mutagenicity           |                      | human lymphocytes               | negative | OECD 473 (Chromosomal Aberration)  | In vitro study                 |
| Mutagenicity           |                      | mouse lymphoma cells            | negative | OECD 476 (Mammalian Gene Mutation) | In vitro study                 |
| Developmental Toxicity | NOAEL 300 mg/kg/d    | rabbit                          |          | OECD 414, Oral                     | Maternal toxicity              |
| Developmental Toxicity | NOAEL > 1000 mg/kg/d | rabbit                          |          | OECD 414, Oral                     | Fetal toxicity, Embryotoxicity |
| Reproductive toxicity  | NOAEL < 200 mg/kg/d  | rat, parental, female           |          | OECD 421                           | Maternal toxicity              |
| Reproductive toxicity  | NOAEL 1000 mg/kg/d   | rat, 1. Generation, male/female |          | OECD 421                           |                                |

## **Heptanoic acid, CAS: 111-14-8**

### **CMR Classification**

The available data on CMR properties are summarized in the table above. They do not indicate a classification into categories 1A or 1B

### **Evaluation**

Based on available data, the classification criteria are not met for:

Reproductive toxicity  
Developmental toxicity  
Mutagenicity

## **Heptanoic acid, CAS: 111-14-8**

### **Main symptoms**

cough, headache, nausea, shortness of breath, vomiting, convulsions.

### **Target Organ Systemic Toxicant - Single exposure**

The available data lead to the classification given in section 2

### **Target Organ Systemic Toxicant - Repeated exposure**

Based on available data, the classification criteria are not met for:

STOT RE

### **Aspiration toxicity**

no data available

## **11.2. Information on other hazards**

### **Endocrine disrupting properties**

The substance has not been identified as having endocrine disrupting properties in accordance with section 2.3.

## **Heptanoic acid, CAS: 111-14-8**

### **Other adverse effects**

Components of the product may be absorbed into the body by inhalation.

### **Note**

Handle in accordance with good industrial hygiene and safety practice. Further details on substance data can be found in the registration dossier under the following link:

<http://echa.europa.eu/information-on-chemicals/registered-substances>.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

#### **Acute aquatic toxicity**

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| <b>Heptanoic acid (111-14-8)</b>     |               |                                       |                   |
|--------------------------------------|---------------|---------------------------------------|-------------------|
| Species                              | Exposure time | Dose                                  | Method            |
| Daphnia magna (Water flea)           | 48h           | EC50: 860 mg/l                        | OECD 202          |
| Pimephales promelas (fathead minnow) | 96h           | LC50: > 92 mg/l                       | OECD 203          |
| green algae                          | 72h           | EC50: 61,2 mg/l (Growth rate)         | OECD 201          |
| Pseudomonas putida                   | 17 h          | EC50: > 1000 mg/l (Growth inhibition) | DIN 38412, part 8 |
| Daphnia magna (Water flea)           | 48 h          | EC50: 72 mg/l                         | OECD 203          |
| Oryzias latipes (Medaka)             | 96 h          | LC50: 74,8 mg/l                       | OECD 203          |

## **Long term toxicity**

| <b>Heptanoic acid (111-14-8)</b> |                                 |                                |          |
|----------------------------------|---------------------------------|--------------------------------|----------|
| Type                             | Species                         | Dose                           | Method   |
| Reproductive toxicity            | Daphnia magna (Water flea)      | NOEC: 40 mg/l (21d)            | OECD 211 |
| Aquatic toxicity                 | Pseudokirchneriella subcapitata | NOEC: 46 mg/l (3d) Growth rate | OECD 201 |

## **Terrestrial toxicity**

| <b>Heptanoic acid (111-14-8)</b> |               |                          |                         |          |
|----------------------------------|---------------|--------------------------|-------------------------|----------|
| Species                          | Exposure time | Dose                     | Type                    | Method   |
| Eisenia fetida                   | 56 d          | NOEC: 10 mg/kg soil dw   | Reproduction            | OECD 222 |
| Eisenia fetida                   | 28 d          | NOEC: > 32 mg/kg soil dw | Mortality               | OECD 222 |
| Beta vulgaris (Sugar beet)       | 21 d          | NOEC: 7,6 mg/kg soil dw  | Growth                  | OECD 208 |
| Brassica rapa (Turnip)           | 21 d          | EC10: 1,2 mg/kg soil dw  | Growth                  | OECD 208 |
| Lactuca sativa (Lettuce)         | 21 d          | EC10: 27,7 mg/kg soil dw | Growth                  | OECD 208 |
| Lolium perenne (Ryegrass)        | 21 d          | NOEC: 7,6 mg/kg soil dw  | Growth                  | OECD 208 |
| Soil microorganism               | 28 d          | NOEC: 300 mg/kg soil dw  | Nitrogen transformation | OECD 216 |

## **12.2. Persistence and degradability**

### **Heptanoic acid, CAS: 111-14-8**

#### **Biodegradation**

98,7 % (11 d), Sewage, domestic, non-adapted, aerobic, OECD 301 A / ISO 7827.

#### **Abiotic Degradation**

| <b>Heptanoic acid (111-14-8)</b> |              |        |
|----------------------------------|--------------|--------|
| Type                             | Result       | Method |
| Hydrolysis                       | not expected |        |
| Photolysis                       | not expected |        |

## **12.3. Bioaccumulative potential**

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| <b>Heptanoic acid (111-14-8)</b> |                   |                     |
|----------------------------------|-------------------|---------------------|
| Type                             | Result            | Method              |
| log Pow                          | 2,54              | KOW WIN, calculated |
| BCF                              | No data available |                     |

## 12.4. Mobility in soil

| <b>Heptanoic acid (111-14-8)</b>           |                   |            |
|--|-------------------|------------|
| Type                                       | Result            | Method     |
| Adsorption/Desorption                      | log Koc: 1,2      | calculated |
| Surface tension                            | no data available |            |
| Distribution to environmental compartments | no data available |            |

## 12.5. Results of PBT and vPvB assessment

### Heptanoic acid, CAS: 111-14-8

#### **PBT and vPvB assessment**

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

## 12.6. Endocrine disrupting properties

The substance has not been identified as having endocrine disrupting properties in accordance with section 2.3.

## 12.7. Other adverse effects

### Heptanoic acid, CAS: 111-14-8

No data available

## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

#### **Product Information**

Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.

Hazardous waste according to European Waste Catalogue (EWC)

#### **Uncleaned empty packaging**

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

## **SECTION 14: Transport information**

### ADR/RID

#### **14.1. UN number or ID number**

UN 3265

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|   |  |
|---|--|
| <b>14.2. UN proper shipping name</b>      | Corrosive liquid, acidic, organic, n.o.s. (n-Heptanoic acid) |
| <b>14.3. Transport hazard class(es)</b>   | 8  |
| <b>14.4. Packing group</b>                | II   |
| <b>14.5. Environmental hazards</b>        | no   |
| <b>14.6. Special precautions for user</b> |  |
| ADR Tunnel restriction code               | (E)  |
| Classification Code                       | C3   |
| Hazard Number                             | 80   |

## ADN

ADN: Container and Tanker

|   |  |
|---|--|
| <b>14.1. UN number or ID number</b>       | UN 3265  |
| <b>14.2. UN proper shipping name</b>      | Corrosive liquid, acidic, organic, n.o.s. (n-Heptanoic acid) |
| <b>14.3. Transport hazard class(es)</b>   | 8  |
| <b>14.4. Packing group</b>                | II   |
| <b>14.5. Environmental hazards</b>        | no   |
| <b>14.6. Special precautions for user</b> |  |
| Classification Code                       | C3   |
| Hazard Number                             | 80   |

## ICAO-TI / IATA-DGR

|   |  |
|---|--|
| <b>14.1. UN number or ID number</b>       | UN 3265  |
| <b>14.2. UN proper shipping name</b>      | Corrosive liquid, acidic, organic, n.o.s. (n-Heptanoic acid) |
| <b>14.3. Transport hazard class(es)</b>   | 8  |
| <b>14.4. Packing group</b>                | II   |
| <b>14.5. Environmental hazards</b>        | no   |
| <b>14.6. Special precautions for user</b> | no data available  |

## IMDG

|  |  |
|--|--|
| <b>14.1. UN number or ID number</b>                                  | UN 3265  |
| <b>14.2. UN proper shipping name</b>                                 | Corrosive liquid, acidic, organic, n.o.s. (n-Heptanoic acid) |
| <b>14.3. Transport hazard class(es)</b>                              | 8  |
| <b>14.4. Packing group</b>   | II   |
| <b>14.5. Environmental hazards</b>                                   | no   |
| <b>14.6. Special precautions for user</b>                            |  |
| EmS  | F-A, S-B   |
| <b>14.7. Maritime transport in bulk according to IMO instruments</b> |  |
| Product name   | n-Heptanoic acid   |
| Ship type  | 3  |
| Pollution category   | Z  |
| Hazard class   | S/P  |

## **SECTION 15: Regulatory information**

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## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### Regulation 1272/2008, Annex VI

#### Heptanoic acid, CAS: 111-14-8

**Classification** Skin Corr. 1B; H314  
**Hazard pictograms** GHS05 Corrosion  
**Signal word** Danger  
**Hazard statements** H314

#### DI 2012/18/EU (Seveso III)

**Category** not subject

#### DI 1999/13/EC (VOC Guideline)

| Component                       | Status      |
|---------------------------------|-------------|
| Heptanoic acid<br>CAS: 111-14-8 | not subject |

#### The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019 No. 758

| Component                       | Status                                  |
|---------------------------------|---|
| Heptanoic acid<br>CAS: 111-14-8 | The substance is/will be pre-registered |

For details and further information please refer to the original regulation.

### International Inventories

#### **Heptanoic acid, CAS: 111-14-8**

AICS (AU)  
DSL (CA)  
IECSC (CN)  
EC-No. 2038387 (EU)  
ENCS (2)-608 (JP)  
ISHL (2)-608 (JP)  
KECI KE-18284 (KR)  
INSQ (MX)  
PICCS (PH)  
TSCA (US)  
NZIoC (NZ)  
TCSI (TW)

### National regulatory information Great Britain

#### **Releases to air (Pollution Inventory Substances)**

not subject

#### **Releases to water (Pollution Inventory Substances)**

not subject

#### **Releases to sewer (Pollution Inventory Substances)**

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not subject

For details and further information please refer to the original regulation

## 15.2. Chemical safety assessment

The Chemical Safety Report (CSR) is not required.

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

### Abbreviations

A table of terms and abbreviations can be found under the following link:

[http://echa.europa.eu/documents/10162/13632/information\\_requirements\\_r20\\_en.pdf](http://echa.europa.eu/documents/10162/13632/information_requirements_r20_en.pdf)

### Training advice

For effective first-aid, special training / education is needed.

### Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on OQ owned data and public sources deemed valid or acceptable. The absence of data elements required by OSHA, ANSI or Annex II, Regulation 1907/2006/EC indicates, that no data meeting these requirements is available.

### Further information for the safety data sheet

Changes against the previous version are marked by \*\*\*. Observe national and local legal requirements. For more information, other material safety data sheets or technical data sheets please consult the OQ homepage ([www.chemicals.oq.com](http://www.chemicals.oq.com)).

The annex is not required because the substance is registered as an intermediate under REACH

### Disclaimer

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**End of Safety Data Sheet**